

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

THOMAS R. AHERN,
Plaintiff,

v.

SIG SAUER, INC. and CITY OF
CAMBRIDGE,

Defendants.

No. 21-cv-11007-DJC

**PLAINTIFF THOMAS AHERN'S OMNIBUS OPPOSITION TO DEFENDANT SIG
SAUER, INC.'S MOTIONS TO EXCLUDE EVIDENCE AND OPINIONS OF
PLAINTIFF'S EXPERTS TIMOTHY HICKS, JAMES TERTIN, AND PETER VILLANI**

BACKGROUND

The plaintiff, Thomas Ahern (“Mr. Ahern”), alleges that on May 19, 2019, while on duty at the MayFair festival in Harvard Square in Cambridge, his SIG P320 pistol discharged without a trigger pull as he performed a routine function check of his holster. Mr. Ahern did not pull the trigger and has so testified. No witness saw Mr. Ahern pull or touch the trigger or saw an object inside or near the trigger guard. There is no evidence from which it can be inferred that Mr. Ahern pulled the trigger. There is no evidence from which it can be inferred that a foreign object touched or wrapped itself around the trigger, much less pulled the trigger with the requisite force to discharge the pistol.

Like many plaintiffs around the country, Mr. Ahern asserts that the P320 is defective and can discharge without a trigger pull.¹ Mr. Ahern has identified three experts, Timothy Hicks,

¹ In its promotional materials, SIG explicitly stated, “The Sig P320 does not fire unless you want it to.” See *SIG Promotional Materials*, Matt Farkas Dep. Exhibit 11 (attached as Exhibit A).

James Tertin, and Peter Villani, whose testimony will assist the factfinder in understanding the defective design of the P320. SIG seeks to exclude all three witnesses pursuant to Fed. R. Evid. 702 and *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993). Exercising its traditional gatekeeper function, the Court should allow each of the experts identified by *both* Mr. Ahern and SIG to offer the jury their opinions on the P320 so that the jury can make an informed decision.²

ARGUMENT

Federal Rule of Evidence 702 provides the following requirements for the admission of expert witness testimony at trial:

- A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
- (a) The expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or determine a fact in issue;
 - (b) The testimony is based on sufficient facts or data;
 - (c) The testimony is the product of reliable principles and methods; and
 - (d) The expert has reliably applied the principles and methods to the facts of the case.

In *Daubert*, the Supreme Court determined that “trial courts perform a gatekeeping role in regulating the admission of expert testimony under Fed. R. Evid. 702,” a role that entails a “screening function” to evaluate “proffered expert testimony for both reliability and relevance.” See *United States v. Diaz*, 300 F.3d 66, 73 (1st Cir. 2002). The proponent of the expert witness has the burden of establishing the reliability and relevance, and thus, the admissibility of the evidence. See *Martínez v. United States*, 33 F.4th 20, 24 (1st Cir. 2022).

² SIG has identified Derek Watkins as its expert witness regarding the design and manufacture of the P320.

In determining whether to admit expert testimony, the judge serves as a gatekeeper; in carrying out this function, the focus is on the process that generated the expert's opinion, not merely the expert's opinion itself. *See López-Ramírez v. Toledo-González*, 32 F.4th 87, 94 (1st Cir. 2022). Put differently, the judge must determine whether "an expert's testimony both rests on a reliable foundation and is relevant to the task at hand," such that the opinion will be helpful to the trier of fact. *Daubert*, 509 U.S. at 591 & 597. There is no definitive checklist or test that a judge must perform to assess the reliability of an expert; there are many different kinds of experts and many different kinds of expertise, and thus a judge must be afforded wide latitude to determine whether a particular expert's testimony satisfies the requirements of Fed. R. Evid. 702. *See Milward v. Acuity Specialty Prods. Grp., Inc.*, 639 F.3d 11, 15 (1st Cir. 2011) (citations and quotations omitted).

I. TIMOTHY HICKS

A. Hicks is Qualified to Provide Expert Testimony in this Case

Two courts in the First Circuit have allowed Hicks to provide expert testimony regarding the design and manufacture of the P320, rejecting the same *Daubert* arguments that SIG makes in this case. *See Guay v. Sig Sauer, Inc.*, 610 F. Supp. 3d 423 (D. N.H. 2022) (attached as Exhibit B); *Green-Berrios v. Sig Sauer, Inc.*, 3:22-cv-01002, *Report & Recommendation re Sig Sauer, Inc.'s Mot. in Lim. to Exclude Plaintiff's Expert Timothy Hicks* (D. P.R. Feb. 27, 2024) (attached as Exhibit C).

Hicks has an extensive background as a mechanical engineer and vast experience in the testing and evaluation of firearms. He has the requisite experience and qualifications to provide expert testimony regarding the design and manufacture of the P320. Hicks is a mechanical engineer, licensed in Illinois and a number of other states, and has diverse engineering

background with firearms. *See* Hicks Report at 1 (attached as Exhibit D). Hicks is employed at Professional Analysis and Consulting, Inc. (“Professional Analysis”), “a technical consulting firm specializing in product performance and root cause failure analysis and prevention.” *Id.* In his role at Professional Analysis, Hicks “has performed numerous investigations and certification tests on firearms and firearm safety devices, pursuant to California and Massachusetts regulations, and for incidents involving firearms.” *Id.* Hicks also has numerous firearms certifications and is a member of multiple engineering organizations. He has received Certificates of Eligibility from the California Department of Justice Bureau of Firearms and the Massachusetts Firearms Records Bureau Executive Office of Public Safety for analyzing and performing firearms certification testing, and SIG has also certified Hicks as a P320 armorer.

See id.

SIG contends that Hicks is not qualified to render an expert opinion in this case because he has more engineering experience in the automotive industry than the firearms industry. The district courts in *Guay* and *Green-Berrios* rejected this precise argument. *See Guay*, 610 F. Supp. 3d at 433 (“[T]here is no indication that [the] mechanics of guns are so specialized that a person requires a lifetime of experience specifically with guns or a particular gun to be able to opine about its design or manufacturing flaws”); *Green-Berrios*, 22-cv-01002 at 9-10 (“Sig Sauer’s contention that Hicks is not qualified because he has no specific experience in firearm manufacturing and design misses the mark.”). *See also Mathews v. Remington Arms, Co.*, No. 07-1392, 2009 U.S. Dist. LEXIS 41808 at *3 (W.D. La., May 2, 2009) (finding mechanical engineer qualified because he had extensive experience as a consultant in cases involving firearm mechanical failures even though he had not designed firearms or component parts). This Court

should likewise find that Hicks is qualified to offer an opinion on the design and manufacture of the P320.

B. Hicks' Expert Opinion is Supported by Reliable Methodology

Hicks is expected to testify that the P320 is defective for a variety of reasons, including:

(1) the P320's internal components are not properly "secondarily machined"; (2) the P320's internal components, based on Hicks's objective calculations, measurements, and observations, do not meet the specifications of SIG's own manufacturing drawings; and (3) according to language from SIG's P320 owner's manual and a patent filed by SIG, impulses imposed on the firearm over the course of its lifetime (such as shock, vibration, heavy or repeated drops) can cause these internal components and safety mechanisms to fail, resulting in the P320 discharging without a trigger pull.

More specifically, Hicks is expected to testify that the sear-striker engagement in the P320, one of the two internal safety features in the pistol (there is no external safety), is produced using a Metal Injection Molding ("MIM") process without the benefit of secondary machining. Hicks Report, Ex. D at 6; Hicks Dep. at 184-189 (attached as Exhibit E). Because the parts do not have secondary machining, there is excess variability and therefore reduced contact surface area between the components. Hicks Report, Ex. D at 6. Based on Hicks's examination of a CT scan performed on Mr. Ahern's P320, the sear-striker engagement is misaligned, contributing to the likelihood that the striker can become disengaged from the sear. *Id.* at 9-10.

Hicks also will testify that the striker safety lock,³ the other internal safety component of the P320, is a stamped steel part that fails to meet SIG's own specifications. Hicks Dep., Ex. E at 191. Hicks describes this "stamping" process as a "cookie-cutter" process. *Id.* at 193. The

³ See Hicks Report, Ex. D, Figure 13; ECF 142-10, Derek Watkins Expert Report at 7, Figure 3.2 (figure demonstrating the P320 internal components, including the striker safety lock)

stamped steel striker safety lock, like the striker and the sear, is not secondarily machined; thus, like the striker, the striker safety lock has an inconsistent surface finish. Hicks Report, Ex. D at 13.

Hicks will also testify that, according to SIG's specifications, the striker safety lock should engage the striker pin at a 90-degree angle. *Id.* at 14; Hicks Dep., Ex. E at 195. Based on this CT scan, Hicks determined that this angle was not 90 degrees on Mr. Ahern's P320, likely due to manufacturing defects during the stamping process. *Id.* at 203-04; Hicks Report, Ex. D at 13-14. As a result, the striker lock does not sit flush against the striker, as it should and, because of the inconsistent surface finish and the poor manufacturing during the "stamping" process, the striker lock can fall out of position (or become disengaged), allowing the striker to move forward and the firearm to discharge. *Id.* at 13-14, 21; Hicks Dep., Ex. E at 204.

Hicks also observed four tabs on the fire control unit of Mr. Ahern's P320 that are not made to specification. *Id.* at 206-07. These four tabs control the positioning of the slide assembly to the grip module assembly. *Id.* at 207. The slide assembly and grip module assembly are the two main sub-parts of the P320. *Id.* Hicks opines that these gaps and misalignments in the slide assembly create "excessive play" or movement between the slide assembly and grip module, which can impact the connection of the components within those two main sub-parts of the P320, including but not limited to the sear-striker connection. *Id.*

Hicks concludes that the combination of these defects, exacerbated by specific impulses (such as vibration or shock) to the firearm during the firearm's lifetime, allows the striker to become disengaged from the sear and the striker lock to disengage, causing the striker to move forward and strike the primer, resulting in a discharge of the pistol without a trigger pull. Hicks

Report, Ex. D at 9-10; Hicks Dep., Ex. E at 221.⁴ The *Guay* court noted that these “variables, misalignments, and inconsistencies in the P320’s parts decrease the contact between the parts that keep the gun from firing unintentionally.” *Guay*, 610 F. Supp. 3d at 433.

Hicks notes that SIG itself has stated that impulses, such as shock, vibration, and heavy or repeated drops, can cause the internal safety components of the P320 to malfunction. *See* Sig Sauer P320 Owner’s Manual, City Response Production 3 000940 (attached as Exhibit F) (“[E]xposure to acute conditions (e.g. shock, vibration, heavy or repeated drops) may have a negative effect on these safety mechanisms and cause them to fail to work as designed.”); United States Patent, Patent No. US 10,684,087 B2 (attached as Exhibit G) (“In contrast to releasing striker [] by user action, such as pulling trigger [] or operating the takedown lever, sear [] can be inadvertently displaced in rare circumstances due to an impulse or sudden impact force. The displacement of sear [] can result in striker disengaging from sear []. After being displaced by the impulse, sear [] is not retained in the displaced position, but instead returns after the impulse ends towards the cocked position due to the force of sear spring(s) [.].”). SIG representatives have also stated that any such impulse can cause the striker to disengage from the sear. *See id.* (“[A] second engagement surface can be used to arrest forward movement of the striker in the event of an impulse that causes the striker to disengage from the first engagement surface.”).⁵

“Expert testimony may be excluded if there is too great an analytical gap between the data [upon which the opinion relies] and the opinion proffered.” *Milward*, 639 F.3d at 15.

⁴ Mr. Ahern dropped his P320 days before the May 19 discharge incident. ECF 134-1, City of Cambridge’s Ex. A, Ahern Dep. at 175.

⁵ Hicks also references videos he viewed in which a P320 has discharged without a trigger pull in a holster. Such videos allow him to compare similar incidents of uncommanded discharges. Hicks Dep., Ex. E at 79, 81, 107. Prior to Mr. Ahern’s uncommanded discharge on May 19, 2019, SIG was aware of approximately 22 incidents in which an individual alleged that their P320 discharged without a trigger pull. *See* Chris Meyers Dep. at 83-103 (attached as Exhibit H).

(quotation and citation omitted). There is no such gap here. Hicks' opinion rests upon the objective measurements, calculations, and observations of Mr. Ahern's P320 and there is therefore no reason under *Daubert* to keep his testimony from the jury. *See Pagliaroni v. Mastic Home Exteriors, Inc.*, 2015 WL 5568624, at *6 (D. Mass. 2015) (Casper, J.) (expert witness's opinion regarding whether decks suffered from defect was based on reliable methodology where it was based upon a review of data, calculations, raw material records, and observations of sample wood-plastic composite decks).

SIG argues that Hicks's opinion is unreliable because he did not replicate the uncommanded discharge. SIG made this same argument, regarding Hicks, in *Guay* and *Green-Berrios*. Both courts rejected this argument and concluded that his opinion rests upon sound and reliable methodology. *See Guay*, 610 F. Supp. 3d at 426; *Green-Berrios*, 22-cv-01002 at 10-14. The *Guay* court found that Hicks's opinion derives from "objective, observable characteristics of the [P320]." *Guay*, 610 F. Supp. 3d at 433. Hicks was present for the inspection of Mr. Ahern's P320 in October 2022, took his own measurements and photographs of the pistol, reviewed the CT scan of the pistol, and compared the measurements therein to his own measurements, which were verified by microscope. Hicks Dep., Ex. E at 23-24, 189-190.

The First Circuit has noted that testing is a common and "useful reliability guidepost[]" but has explicitly stated: "[T]his circuit has never adopted a rule that an expert himself must have tested an alternative design, much less by building one. We decline to adopt either requirement as a bright-line rule or as applied to this case." *Quilez-Velar v. Ox Bodies, Inc.*, 823 F.3d 712, 718-19 (1st Cir. 2016). Hicks testified at length as to why a "test" to replicate the uncommanded discharge of a P320 is unreasonable and impractical. Hicks Dep., Ex. E at 219-225.⁶ Any

⁶ SIG points to its 2021 Dayton Brown testing as conclusive "proof" that impulses such as shock or vibration cannot result in a discharge without a trigger pull. The Dayton Brown testing consisted of one hour of vibration testing on

realistic “impulse testing” on the P320 would have to replicate the real-world impulses that are imposed on a firearm by police officers in carrying out their daily duties. *Id.* at 220. Such around-the-clock testing is neither reasonable nor practical. Hicks testified that it is not necessarily a single impulse that will lead to the discharge of a P320 without a trigger pull; it is the cumulative effect of impulses and vibrations on the firearm, combined with the excessive variability in SIG’s manufacturing of the P320, that results in *some* P320s being susceptible to a discharge without a trigger pull. *Id.* at 222-24, 245.

SIG is of course free to cross examine Hicks on the testing issue but it is not grounds for wholesale exclusion of his testimony. *See Guay*, 610 F.Supp.3d at 431-32 (“whether Villani’s theory is confirmed by specific testing does not necessarily make it inadmissible; rather, it makes it susceptible to cross-examination by Sig Sauer and rebuttal by Sig Sauer’s own experts”) (citing *Quilez-Velar*, 834 F.3d at 719). *See also Daubert*, 509 U.S. at 596 (emphasis added) (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and *appropriate* means of attacking” expert testimony).

At bottom:

[n]otwithstanding the deep dive that courts often take to adequately assess the reliability of expert methodology, especially in highly technical industries, [courts] must stop short of weighing the evidence, evaluating credibility, or unnecessarily picking sides in a battle between experts. So long as an expert’s scientific testimony rests upon ‘good grounds, based on what is known,’ it should be tested by the adversarial process.

Lawes v. CSA Architects & Engineers LLP, 963 F.3d 72, 98 (1st Cir. 2020) (*citing Milward*, 639 F.3d at 15). Rather, the judge must determine only whether “[t]he proponent of the evidence”

10 new P320 pistols. Hicks Dep., Ex. E at 227. Mr. Hicks will opine that such testing is not realistic for a number of reasons, including because such testing does not replicate the everyday movements of a police officer, does not replicate real-world impulses imposed on a P320 over the course of the pistol’s lifetime, and involved the testing of 10 new firearms, as opposed to firearms that had already been subject to regular usage. Hicks Report, Ex. D at 18.

has shown “that the expert’s conclusion has been arrived at in a scientifically sound and methodologically reliable fashion.” *Id.* (quotation and citations omitted). Hicks’ expert opinion has been arrived at in exactly such a fashion. His expertise as a mechanical engineer would assist the jury in explaining the design and manufacturing elements of the P320 that render it defective. *See Guay*, 610 F.3d at 433.

As the *Guay* court observed:

To the extent Sig Sauer disagrees with Hicks’s opinion, it has its own experts to present that disagreement and can cross-examine Hicks about the bases for his opinion. In sum, Sig Sauer’s challenges to the reliability of Hicks’s opinion are directed more to the sufficiency or weight of Hicks’s opinion than to its threshold reliability.

Guay, 610 F.Supp.3d at 434. As in *Guay* and *Green-Berrios*, this Court should deny SIG’s motion to exclude Hicks’ testimony.

II. JAMES TERTIN

A. Tertin is Qualified to Provide Expert Testimony in this Case

James Tertin is the Director of Research and Development for Magnum Research, a firearms manufacturer and importer based in Minnesota. Tertin Report at 2 (attached as Exhibit I). He is a professional gunsmith, a position he has held since graduating in 1972 from Trinidad State College in Colorado, the oldest gunsmithing school in the United States. *Id.* at 2. He has over 50 years of experience as a professional gunsmith, is responsible for designing and developing new firearms for Magnum Research, and has been awarded 15 firearms design patents. *Id.* at 2. In light of Tertin’s extensive background in gunsmithing, the research and development of firearms, and firearm manufacturing, he possesses the requisite scientific, technical, and specialized knowledge that will help the jury in understanding the evidence.

B. Tertin's Expert Opinion is Supported by Testing, Objective Observations, Technical Measurements, and Reliable Methodology

We anticipate that Tertin will testify that the following five factors render the P320 defective: (1) a precarious engagement between the sear and the striker; (2) that the sear and striker are non-qualified MIM parts; (3) a spring charge connection between the striker and the sear; (4) that the P320 is a single-action pistol; and (5) the lack of an effectively designed safety. Tertin Dep. at 144-146 (attached as Exhibit J).⁷ As to the first two factors, Tertin's testing began with his inspection and various measurements of the P320, including the measurement of the engagement between the striker and the sear, which measures approximately .041 thousandths of an inch. Tertin Report, Ex. I at 2-3, 9. Tertin maintains that the engagement surface is so small that only minimal force (i.e. "slightly under four to five and a half pounds of pull") could disengage the striker from the sear. *See* Tertin Dep., Ex. J at 147. Moreover, the striker and sear are MIM⁸ parts, such that "[n]either has been qualified to an exact dimension or finish." Tertin Report, Ex. I at 16. Tertin opines that it is "not normal practice to leave such an important functional feature as the sear and striker interfacing with each other and in the molded unmachined condition." *Id.* at 3. Generally, parts as important as the striker and sear are "qualified" so that the manufacturer can "obtain a perfect match to the opposing parts, as well as finished dimensional integrity and finish." *Id.* Tertin therefore concurs with Hicks that the MIM nature of the parts in the striker and sear increases the likelihood of an uncommanded discharge. *Id.*

⁷ SIG seeks to disqualify Mr. Tertin based on testimony in past cases that it views as inconsistent. Alleged inconsistent past testimony is an issue for cross examination, not whole-sale disqualification. In any event, in those cases the scope of Tertin's opinion was limited to the P320's lack of an external safety. *See* Tertin Dep., Ex. J at 146. ("I mentioned in earlier reports, [the P320] is the only single action pistol designed with no type of external safety whatsoever."). Tertin's opinion evolved based on his review and consideration of other expert reports, particularly that of Hicks, Tertin's own testing, and Mr. Ahern's testimony. *See id.* at 9-11, 146.

⁸ Tertin describes the MIM process as "a good way to get cheap parts." Tertin Dep., Ex. J at 149.

As to the third factor, we expect that Tertin will testify that the spring charge connection between the sear and the striker contributes to P320's susceptibility to a discharge without a trigger pull. Tertin Report, Ex. I at 3; Tertin Dep., Ex. J at 144. The sear is held in the vertical position by springs, which require a downward force of only three pounds to "drop" the sear and allow the striker to move forward and fire the pistol. Tertin Report, Ex. I at 3; Tertin Dep., Ex. J at 65. Tertin's opinion regarding the spring charge connection between the sear-striker, which he notes is "unique to the [P]320," is that "[j]ostling, bumping, day-to-day use, carrying, sitting, moving," a drop, or "other outside forces," can disengage the striker and the sear, causing the discharge of the pistol. Tertin Report, Ex. I 16 1; Tertin Dep., Ex. J at 44, 65, 85-86, 155-57.⁹

SIG's lead team designer for the P320 testified that SIG implemented a "secondary sear notch" that was designed "so that if the sear moves out of position without the trigger being pulled, the intercept notch would come back up and catch the striker so you won't have a fire."¹⁰ Toner Dep. at 90-91 (attached as Exhibit K). Testing performed by Tertin determined that the secondary sear notch "fails when manipulated as Mr. Toner suggests." Tertin Report, Ex. I at 5. SIG criticizes Mr. Tertin's test, claiming that it "was not intended to show what would happen in a real world scenario or in Plaintiff's incident." *See Memo. of Law ISO SIG's Mot. to Bar the Testimony of James Tertin ("Tertin Daubert Motion")* at 11. That is an argument for cross examination not for exclusion of his testimony. *See Guay*, 610 F.Supp.3d at 432 (jury is capable of evaluating argument that certain testing is not useful because "real-world circumstances" are not involved).

⁹ When asked about whether the trigger would need to be pulled, at least partially, to disengage the striker safety lock, Mr. Tertin responded that would be necessary, unless the striker safety lock was not functioning properly. Tertin Dep., Ex. J at 138. Mr. Hicks testified that the striker safety lock is not made to SIG's own specifications, and therefore, is susceptible to malfunction. *See supra* at § I(C) at p. 8-10.

¹⁰ The secondary sear notch is the subject of the patent, cited *supra* p. 6, containing language that an "impulse" to the firearm can cause the sear to disengage from the striker.

Tertin's final two factors are that the P320 is a single action pistol and has no effectively designed external safety. Tertin Dep., Ex. J at 144-45. A single-action pistol means that the pistol's trigger does not cock the striker; it only serves to release the striker. Tertin Report, Ex. I at 5-6. Thus, the striker in the P320 is fully-cocked, resting against the sear, which is the only part holding the striker in the "firing position." *Id.* Because the firearm is already cocked and only minimal movement of the trigger is required to release the striker from the sear and fire the pistol, an effective manual safety is "necessary to ensure that a [single-action] firearm can be handled safely." *Id.* at 6. SIG's P320 and P365 are "[t]he only two single action pistols on the market today with no external manual safeties . . ." *Id.* at 7. Tertin is expected to testify that "[a] well-designed manual safety" in the P320 that blocks the sear, striker, or both, or a manual safety that disengages the sear-striker relationship, would have been a safer, alternative design. Tertin Dep., Ex. J at 141.

SIG is wrongly focused on Tertin's *conclusion* that the P320 can discharge without a trigger pull. The question is not whether Tertin's "five factor" theory is in fact correct. *See Ruiz-Troche v. Pepsi Cola of P.R. Bottling Co.*, 161 F.3d 77, 85 (1st Cir. 1998) ("*Daubert* does not require that a party who proffers expert testimony carry the burden of proving to the judge that the expert's assessment of the situation is correct."). The question is whether Tertin's opinion rests on a reliable foundation and is "relevant to the task at hand" such that the opinion will be helpful to the trier of fact. *See Daubert*, 509 U.S. at 591 & 597. Tertin's opinion satisfies that standard. It is based on the application of his highly technical and specialized knowledge of firearms to his *objective* measurements and observations of the P320, as well as his own testing. *See Pagliaroni v.* 2015 WL 5568624, at *6 (D. Mass. Sept. 22, 2015). Any alleged deficiency should be addressed by "[v]igorous cross-examination, presentation of contrary

evidence, and careful instruction on the burden of proof.” *Daubert*, 509 U.S. at 596 (citation omitted). The alternative, exclusion of Tertin’s opinion and testimony, would do nothing but feed into an “overly pessimistic [view] about the capabilities of the jury and of the adversary system generally.” *Id.* For the foregoing reasons, SIG’s motion to exclude Tertin’s testimony should be denied.

III. PETER VILLANI

A. Villani is Qualified to Provide Expert Testimony in this Case

Like Hicks, Villani is an armorer on the P320, certified by SIG. Villani Report at 19 (attached as Exhibit L). The P320 armorer's course, taught by a SIG employee, required Villani to learn the P320 components in detail and pass a written examination as to the P320's components. From 2001 to the present, he has worked for the U.S. Department of Veterans Affairs Police as a primary evidence custodian, senior firearms instructor and armorer, and operations officer with the rank of Major. Villani Report, Ex. L at 19. Villani's duties include detailed examination and maintenance of the guns used in the department. Villani testified that he also investigated a fellow officer who was shot after his P320 discharged without a trigger pull. Villani Dep. at 99 (attached as Exhibit M). From 1995 to 1999, Villani managed a shooting range, where he routinely maintained and repaired firearms and held gun safety classes. *Id.* at 18.

Villani need not possess a degree in mechanical engineering to have extensive “specialized expertise” and knowledge in firearms, and specifically the SIG P320, for the jury to be allowed to consider his testimony. *See Kumho Tire v. Carmichael*, 526 U.S. 137, 156 (1999) (“[A]n expert [may] draw a conclusion from a set of observations based on extensive and specialized experience.”). The *Daubert* factors “neither necessarily nor exclusively applies

to all experts or in every case.” *Id.* at 141. To the extent SIG takes issue with Villani’s methodology, these arguments can and should be explored on cross-examination. *See Daubert*, 509 U.S. at 596.

The *Guay* court rejected SIG’s *Daubert* challenge to Villani. The court explained:

Considering Villani’s extensive professional experience with firearms maintenance and safe operation, Villani’s lack of engineering training and minimal formal higher education is not significant to the question of admissibility in this case. To be sure, the subject matter about which Villani plans to testify—the mechanical components of the P320 and guns like the P320—is beyond the knowledge the average person possesses. At the same time, the subject matter of Villani’s opinion is not rocket science. In other words, Villani’s lack of engineering experience is less important than it might be in another case with a more complex machine. Accordingly, neither a degree in engineering nor a lifetime designing firearms is necessary for Villani to develop sufficient practical experience to opine about how guns or gun safety devices are supposed to work.

Guay, 610 F. Supp. 3d at 430 (citing *Romero v. ITW Food Equip. Grp., LLC*, 987 F. Supp. 2d 93, 102-03 (D. D.C. 2013)) (“Although Defendant objects that Kane has no specialized expertise in designing commercial kitchen equipment . . . Defendant does not explain why such specialized expertise is required in order to competently opine upon the safety of a basic mechanical device sold in 1967.”).

Guay is consistent with precedent rejecting arguments that experts must be a mechanical engineer or designer, in the very same industry or field, to opine on the design or safety features of a product they use, reasoning that extensive professional experience with the product can substitute as warranted. *See, e.g., Kirksey v. Schindler Elevator Corp.*, No. 15-0115-WS-N, 2016 WL 5213928, at *4 n.6 (S.D. Ala. Sept. 21, 2016) (“Defendants’ point is, apparently, that unless Cooper has personally designed escalators, he is unqualified to opine about escalator design. Defendants offer no case law to support such a stringent construction of Rule 702’s qualifications requirement. Research reveals a wealth of well-reasoned authorities to the

contrary.”) (citation omitted); *Hilaire v. DeWalt Indus. Tool Co.*, 54 F. Supp. 3d 223, 242 (E.D.N.Y. 2014) (“Having considered Mr. Barbe’s qualifications, the Court finds that it is not necessary that Mr. Barbe be an electrical or mechanical engineer in order to opine on questions of the safety elements of a product’s design.”).

B. Villani’s Expert Opinion is Supported by Reliable Methodology

Villani’s expert opinion is based on his personal inspection of Mr. Ahern’s P320, his specialized knowledge of the P320 and how it operates, and his substantial experience with firearms. He is expected to testify that Mr. Ahern’s P320, like numerous other P320s he has personally inspected, possessed substantial manufacturing defects that would allow the gun to discharge without a trigger pull. This opinion is hardly novel or unreliable in light of SIG’s own August 4, 2017 press release stating that vibration could cause the P320’s safety mechanisms to fail, and a SIG employee’s 2018 patent also stating that an impulse can make the striker foot/sear connection fail. *See SIG Press Release, SIG SAUER Reaffirms Safety of P320 Pistol*, (dated August 4, 2017) (attached as Exhibit N); *see also* SIG Patent, Ex. G.

Villani’s report notes that he observed that some internal components of Mr. Ahern’s P320 had wear or rounding of their edges, which he describes as “rollover.” Villani Report, Ex. L at 2. Villani is expected to testify that this wear results from insufficient contact between internal parts. The parts’ surfaces are rough and have excess material, which Mr. Villani opines results from the P320’s manufacturing process, that is, the parts are cast in MIM process rather than machined. *Id.* at 15. Villani opines that, if the parts were properly machined, they would not wear in the way he observed. Villani adds that machined parts are “finely finished” which provides “better contact.” Villani is expected to testify that, if the surfaces of these parts were

less rough, there would be more surface area in contact between the parts and therefore a lower likelihood that they slip and allow the gun to fire without a trigger pull. *Id.* at 6, 14-15.

Villani's opinion is supported by SIG's own admission in its 2018 patent that an "impulse" can cause the striker foot to slip from the sear face, causing an unintended discharge:

Sig Sauer's own statement that "*sear 100 can be inadvertently displaced in rare circumstances due to an impulse or sudden impact force*" is consistent with plaintiff's conclusion that any sudden shock, twisting, torquing, or striking can cause the striker's positive contact surface to disengage from the sear's positive contact surface. That Sig Sauer's patent also shows a secondary sear face was added to their "upgrade" to catch the uncommanded tripping of the striker foot proves that the primary sear may release the striker foot uncommanded.

(emphasis in original). *Id.* at 15.

Finally, Villani addresses the subject of laboratory replication of an uncommanded discharge. He notes that realistic testing designed to reproduce such a discharge, never performed by SIG, would be intensely complicated and expensive. SIG's own testing in October 2021 did not include "firearms secured within holsters[, n]or did the testing simulate real world conditions of the P320 being worn or carried." *Id.* at 14. Indeed, Sean Toner, SIG's lead team designer for the P320, has testified that he does not know how to develop a test that would account for such real world conditions and test whether the P320 will discharge without a trigger pull. *See* Deposition of Sean Toner in *Frankenberry v Sig Sauer, Inc.*, 19-cv-02990, at 115-16 (D. S.C. Sept. 16, 2021) ("Toner *Frankenberry* Dep.") (attached as Exhibit O).

Villani noted that the cost alone to acquire a representative sample size of 1,000 P320s for testing would be approximately \$700,000, separate and aside from the cost to actually recreate realistic carrying conditions in a laboratory. Villani Report, Ex. L at 14 n.1. *Daubert* and its progeny recognize that replication of defects is not an "absolute" requirement, *see*

Quilez-Velar, 823 F.3d at 718-19, and that in some cases such testing can be cost prohibitive.

See Daubert, 509 U.S. at 593 (“[A] key question to be answered in determining whether a theory or technic is scientific knowledge that will assist the trier of fact will be whether it *can be* (and has been) tested.” [emphasis added]). Requiring plaintiffs to spend at least approximately \$700,000 to replicate a defective discharge in a lab would effectively close the courts to valid defect claims.

The *Guay* court described the rigors of Villani’s analysis:

Specifically, Villani observed and measured the contact area between certain parts of the P320 that, given his knowledge and experience about how pistols operate, he knows are meant to stay in contact or engaged with each other until the gun’s trigger is pulled. Villani observed that the edges of these parts he analyzed are rounded. Based on his measurements and observations, and his knowledge of firearms components and their mechanics, Villani concluded the parts could slip over each other and allow the gun to be fired without someone pulling the trigger. Because the opinion is supported by reliable foundations – Villani’s measurements, observations, and his experience about how firearms work – it is sufficiently reliable to be admissible.

Guay, 610 F. Supp. 3d at 431. So long as an “expert’s conclusion has been arrived at in a scientifically sound and methodologically reliable fashion,” *see Lawes*, 963 F.3d at 98 (citation and quotation omitted), the opinion should be tested by the adversarial process, rather than excluded for fear that jurors will not be able to handle the scientific complexities. *See Daubert*, 509 U.S. at 596.

CONCLUSION

For the foregoing reasons, SIG’s motions to exclude the expert testimony of Hicks, Tertin, and Villani should be denied.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non-registered participants.

/s/ Pietro A. Conte

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